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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,696	02/09/2001	Takaya Sato	8292. 012	6751

7590 08/11/2004

APEX JURIS PLLC
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EXAMINER	
BELL, BRUCE F	

ART UNIT	PAPER NUMBER
1746	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/779,696	SATO ET AL.	
	Examiner	Art Unit	
	Bruce F. Bell	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-45 is/are pending in the application.

4a) Of the above claim(s) 22-30,35-38,44 and 45 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-21,31-34 and 39-43 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 09 February 2001 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 02/22/02.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-21, 31-34 and 39-43 are rejected under 35 U.S.C. 102(e) as being anticipated by Wariishi et al (6406817).

Wariishi et al disclose a positive or negative electrode being formed by applying an electrode material mixture onto a current collector wherein the electrode active mixture contains various additives such as binders and dispersants. See col. 9, lines 46-56. The electrode materials that may be used in this mixture are shown to be Li_xCoO_2 and Li_xMnO_2 as well as others. See col. 10, lines 9-20. The patent shows the grain size of the electroactive material to be from 0.1 to 50 μm. See col. 10, lines 36-39. The negative electrode material include metallic lithium, lithium alloys, carbonaceous compounds, inorganic chalcogen compounds and metal complexes. See col. 10, lines 58-65. Examples of the carbonaceous materials such as graphite are disclosed as well as metal and metal oxide conducting agents. See col. 11, lines 5-16 and col. 15, lines 27-43. The conducting agent is added to the electrode material mixture in an amount from 1

to 50% by weight. See col. 15, lines 54-60. Binders for the electrode material mixture include polysaccharides, thermoplastic resins and polymers with rubber elasticity. Preferred binders are disclosed and the binder preferred to be used is dispersed as a fine powder in water. See col. 15, line 61 – col. 16, line 62. Current collectors of aluminum, copper, stainless steel, nickel, titanium or alloys thereof, may be used. See col. 16, lines 49-57. The electrode material mixture can be prepared by mixing the positive or negative electrode material with an electric conducting agent, adding a binder and a dispersion medium thereto, kneading the mixture and then dispersing the same with the use of a stirring mixer or dispersing machine such as a mixer, homogenizer, a dissolver, a planetary mixer, a paint shaker, or a sand mill. The dispersing medium can be of water or an organic solvent. See col. 18, lines 50-61. The application of the electrode material mixture to the current collectors can be performed by reverse roll method, direct roll method, blade method, knife method, extrusion method, slide method, curtain method, grauvre method, bar method, dip method, or squeeze method. See Col. 18, line 66 - col. 19, line 1-5. After completion of the application, the electrode sheet is dried and dehydrated with the use of a hot air stream, vacuum, infrared rays, far infrared rays, electron beams or a low-moisture air. See col. 19, lines 18-21. The negative and positive electrodes each comprise a current collector and an electrolyte material mixture is applied onto both surface sides thereof. See col. 17, lines 33-56. The patent further disclose materials to improve the discharge or charge/discharge properties that may be

added to the electrolyte such as polypyrrole and phenylcarbazole. See col. 19, lines 54-67. Further, ionic conductive agents of an organic solid electrolyte are disposed on the electrode active material. See col. 16, lines 42-45.

The prior art of Wariishi et al anticipates applicants' instant invention as set forth in the instant claims as shown by the disclosure of Wariishi et al as set forth above. The prior art of Wariishi et al discloses the same manufacturing methods for producing an electrode structure and battery with such electrode structure as applicants' instantly claimed method and therefore, Wariishi et al anticipates the instant invention as set forth in the claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bruce F. Bell whose telephone number is 571-272-1296. The examiner can normally be reached on Monday-Friday 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Barr can be reached on 571 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

BFB
August 9, 2004

Bruce F. Bell
Primary Examiner
Art Unit 1746